

New York State Department of Transportation

Yellow Flag NB2222W009

By: Sahadeo Bhagwandin
Flag Date: March 30, 2022

Superseding Information:
This flag supersedes: YF NB2197W038

Structure Information

BIN: 1065318
Feature Carried: 278I278IX2M23027
Feature Crossed: 6TH AVENUE
Orientation: 8 - NORTHWEST
Region: 11 - NEW YORK CITY
County: KINGS
Political Unit: City of NEW YORK
Approximate Year Built: 1962
Posted Load Matches Inventory : Yes
Bridge Load Posting (Tons) : Not Posted for Load
Primary Owner: New York State Department of Transportation
Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party
Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder
This Bridge is not a Ramp
Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.
Date: March 30, 2022 10:00:00 AM
Of: NYSDOT Region 11

Signature Information

Signature: Sahadeo Bhagwandin, P.E. 088239-1
Date: April 14, 2022
Reviewed By: Robert Kemp
Date: April 14, 2022

Attachments: 7

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 254			
	107 - Steel Open Girder/Beam	989	ft
	PR831 - Steel Beam End	42	each

Flagged Condition Description

This Yellow Flag No. NB2222W009 is superseding Yellow Flag No. NB2197W038.

Location: Span 254, Girder G1 at Pier 254

Description: Girder G1 web along connection angle exhibits overall 51% section loss for full height (previously noted to be 53%).

There has been no significant changes in the flagged condition since the previous inspection.

Notes:

1.The affected member, Girder G1 is a load path redundant steel girder consisting of a web depth of 19.5" inches and thickness of 0.635 inches and is located under the deck in the roadway, approximately 12" off the edge of curbline/safety walk. All dimensions were measured in the field.

2.The left connection angle exhibits up to 50% section loss along the fillet (no change from previous) and 100% edge section loss at the upper right corner for 3"L x 3"H triangle area (previously noted to be 1"L x 3"H).

3.The right connection angle exhibits two corrosion holes at measuring 4"H x 2"W and 6.5"H x 3.5"W (previously noted to be 1.25"L x 3.25"H and 3"L x 5"H). The remaining height of the connection angle below Girder G1 exhibits up to 90% section loss (no change). The right connection angle along the web of Girder G1 is in good condition with minor pack rust at the top.

4.Girder G1 web along bottom flange exhibits up to 35% section loss for 12"L x 2"H area (no change).

5.The adjacent Girder G2, is 5'-5" on center, and is in good condition.

6.The adjacent Stringer S1, approximately 24" on center, acts as a support for the railing and curb area above and has 1" diameter hole in right angle of the bottom flange.

7.A double left lane closure on 3rd Avenue Eastbound between 20th and 21st streets with shadow vehicle and a 30' bucket truck is required to access the flagged location.

Flag Photographs

Photo Number: 1

Photo Filename: Photo 1-4673 edit.jpg



Attachment Description: Photo 4673 – Span 254, Girder G1 at Pier 254. General view of the flagged location at pier cap connection. Looking end right.

Photo Number: 2

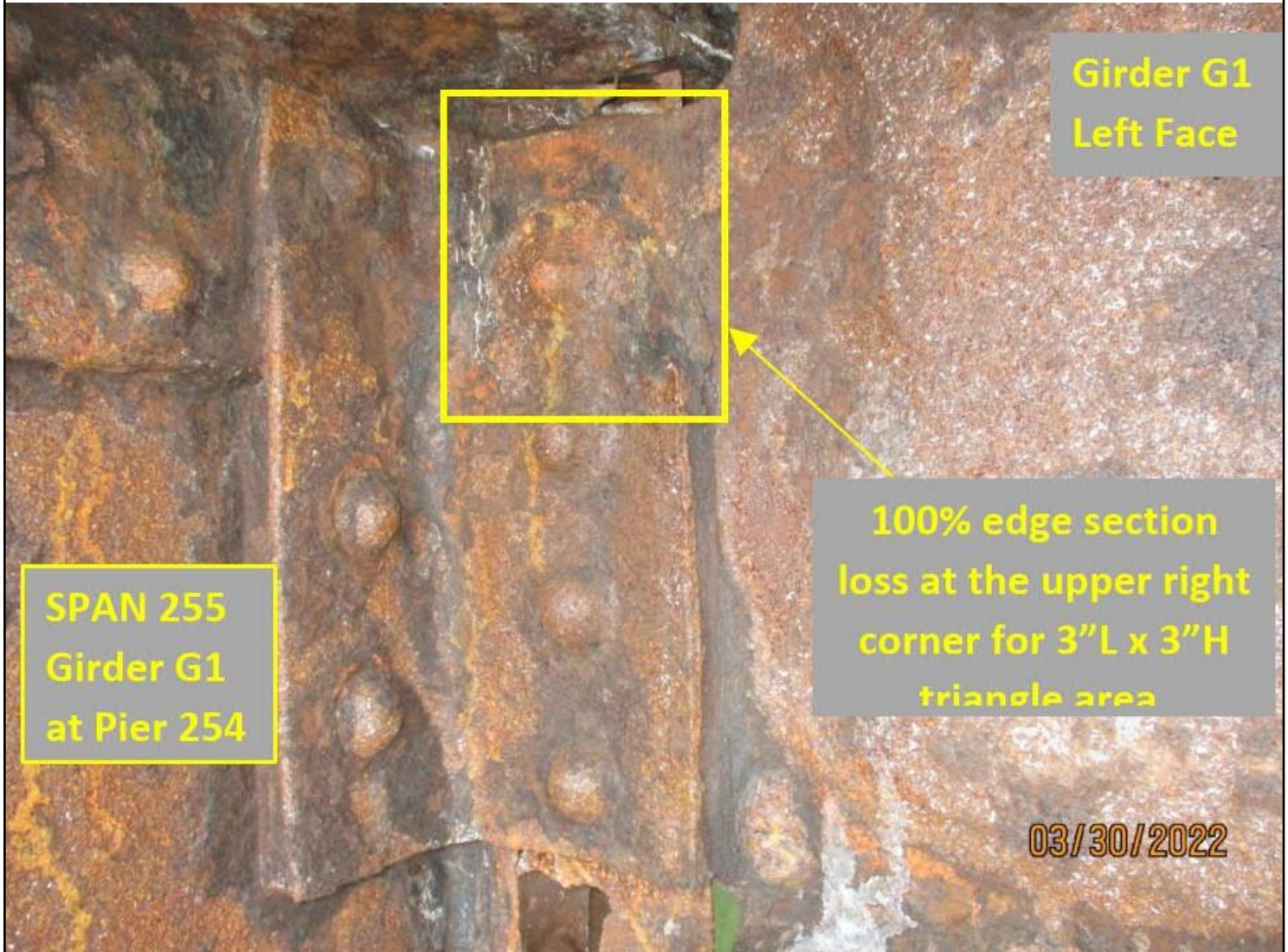
Photo Filename: Photo 2-4676 edit.jpg



Attachment Description: Photo 4676 – Span 254, Girder G1 at Pier 254. Close-up view of Girder G1 showing heavy section loss to the web of the Girder and corrosion holes in connection angle. Looking end right.

Photo Number: 3

Photo Filename: Photo 3-4678 edit.jpg



Attachment Description: Photo 4678 – Span 254, Girder G1 at Pier 254. Close-up view of 100% edge section loss at the upper right corner for 3"L x 3"H triangle area. Looking end right.

Photo Number: 4

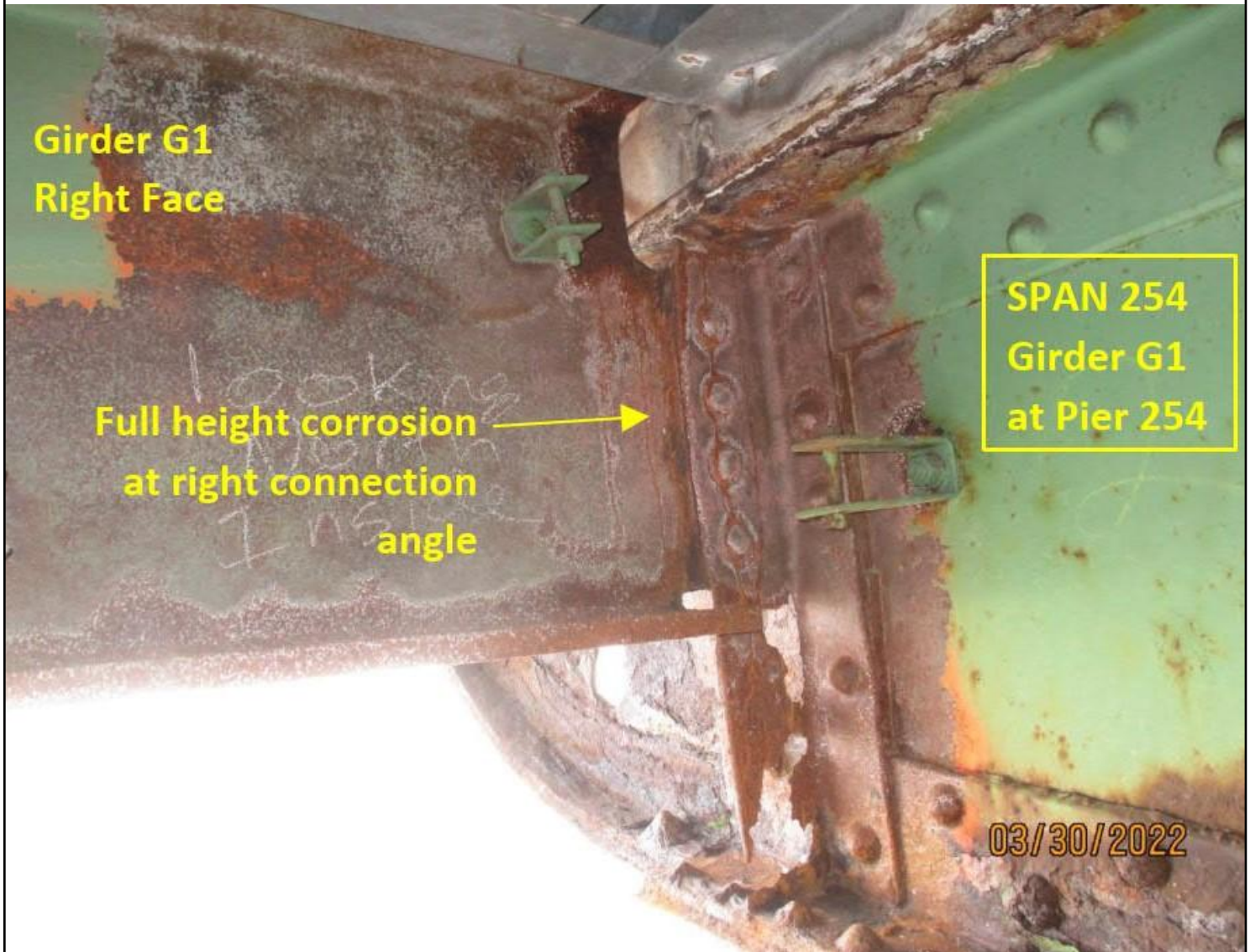
Photo Filename: Photo 4-4658 edit.jpg



Attachment Description: Photo 4658 – Span 254, Girder G1 at Pier 254. Close-up view of the right connection angle that exhibits two corrosion holes measuring 4\"L x 2\"H and 3.5\"W x 6.5\"H. In addition, the web along bottom flange exhibits up to 35% section loss for 12\"L x 2\"H area. Looking right.

Photo Number: 5

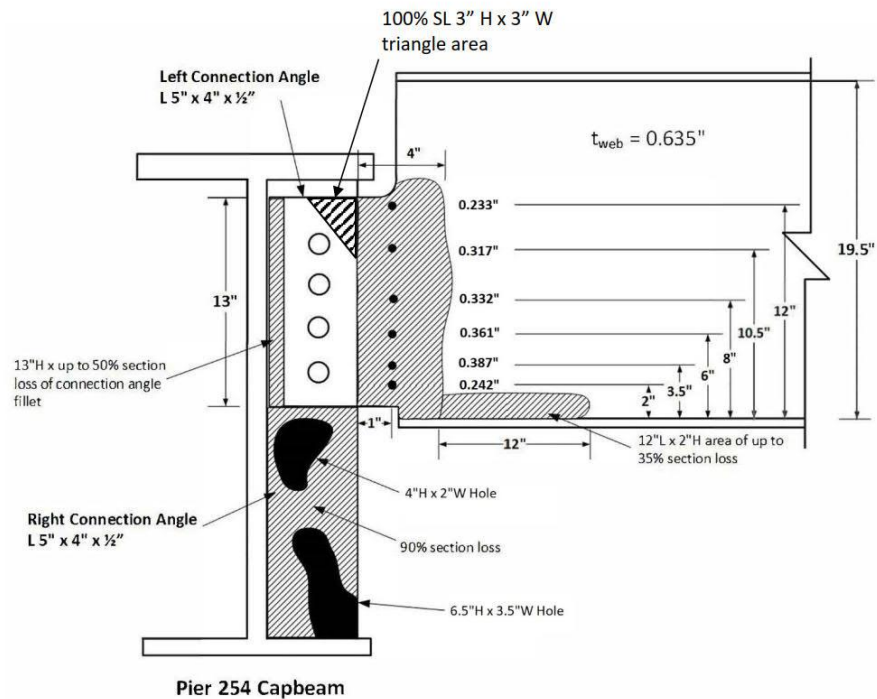
Photo Filename: Photo 5-4683 edit.jpg



Attachment Description: Photo 4683 – Span 254, Girder G1 at Pier 254. General view of Girder G1 right side web and connection angle. The web exhibits full height section loss. Looking end left.

Photo Number: 6

Photo Filename: YF NB2222W009 Sketch_Span 254at G1_03-30-22.jpg



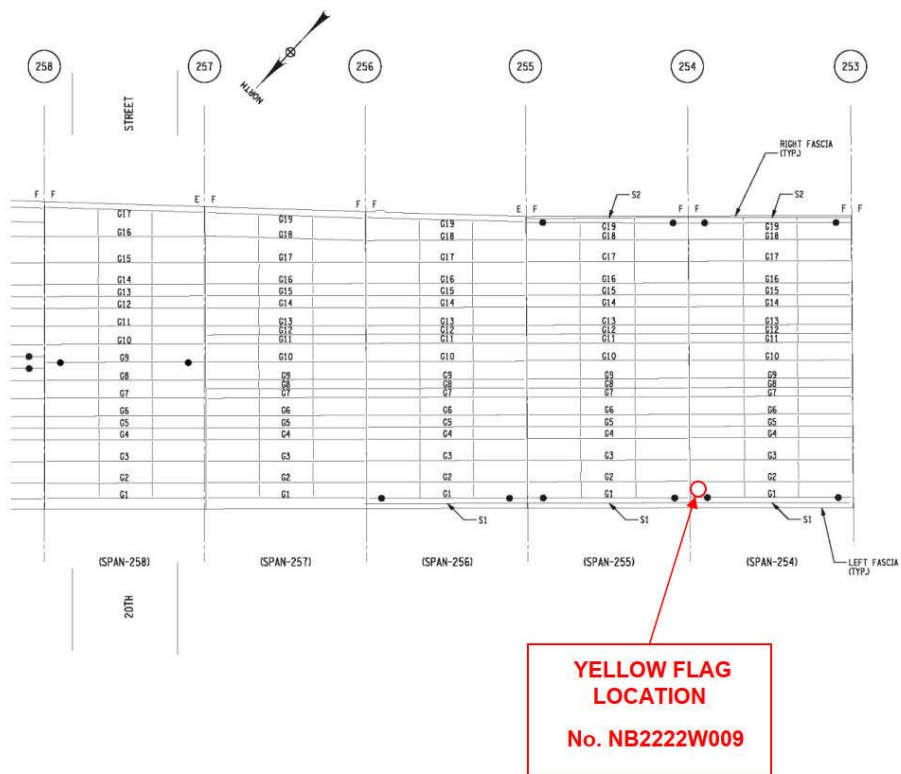
Average remaining web section – $((0.233 \times 2.5) + (0.317 \times 2.5) + (0.332 \times 2) + (0.361 \times 2.5) + (0.387 \times 1.5) + (0.242 \times 2))/6 = 4.008$ sq. in.
 Original Section = 13" H x 0.635" T = 8.255 sq. in.
 Web section loss – $((8.255 - 4.008)/8.255) \times 100\% = 51.4\%$ **SAY = 51%**

**Span 254, Girder G1 at Pier 254
 (Looking Right)
 N.T.S**

Attachment Description: SN 254 G1 at Pier 254 Sketch

Photo Number: 7

Photo Filename: SN254_G1_Framing Plan-2022-edit 2.jpg



Attachment Description: SN 254 G1 at Pier 254 Framing Plan